Controller AEGIS II

Treatment of cooling water in evaporation cooling systems - VDI 2047 and 42-compliant Federal Immission Control Ordinance (BImSchV)-compliant



The AEGIS II records all the necessary measuring parameters for cooling water treatment and controls the functions necessary for smooth operation:

- Measures the electrolytic conductivity controls bleeding
 Biocide metering time-dependent or as measurement
- and control, VDI 2047 and 42-compliant. Federal

Your benefits

- Control of biocide metering over 1, 7 or 28 days, real-time clock
- If desired, the biocide concentration can be measured and controlled online
- Measurement of conductivity, temperature and flow control with the CTFS type digital sensor
- Serial web interface for unit configuration and remote maintenance with e-mail alarms (the controller must be

Field of application

- Control of bleeding in evaporation cooling systems
- Volume-proportional control or regulation of the metering of corrosion inhibitors, de-foamers and dispersants
- Measurement and control of the inhibitor concentration through the use of a fluorescence sensor
- Measurement and optionally control of the pH value and ORP voltage
- Metering of biocides, based on time or measured values

Immission Control Ordinance (BImSchV)-compliant (e.g. chlorine)

- Corrosion measurement determines whether enough corrosion inhibitor is being metered
- pH measurement measures and controls the pH value

connected to the Internet for e-mail alarms). WiFi as an option

- Forced bleeding: performs bleeding before biocide metering, based on time or measured values
- Bleed lock: blocks bleeding after biocide metering has taken place

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Technical Data

Measuring range	Conductivity: with digital sensor CTFS at input A and B and via serial module D1: 0.1 - 10 mS/cm
	via conductivity module L3 depending on sensor used (LMP, L+1): 50 µS/cm - 20 mS/cm via mA module AA with the inductive conductivity sensor ICT: 8 to 2 mS/cm, 20 mS/cm, 200 mS/cm Connection type mV: nH: 0.00 14.00
	ORP voltage: - 1,500 + 1,500 mV Type of connection mA (amperometric measured variables, measuring ranges according to sensors, 2 ppm, 10 ppm): Chlorine Chlorine
	Bromine Temperature: via Pt 100/Pt 1000, measuring range 0 150 °C
Resolution	pH: 0,01 ORP voltage: 1 mV Temperature: 0.1 °C Amperometric analysis (chlorine etc.): 0.001/0.01 ppm, 0.01 Vol.%, 0.1 Vol.%
Inputs and outputs	3 plug-in module positions for 2-channel plug-in modules according to identity code 1 mA input for any analogue signals 5 output relays acting as changeover contacts, of which 3 are potential-free and 2 are AC/DC 4 pulse frequency outputs for controlling metering pumps 2 serial sensor inputs for CFTS conductivity sensors and CRS corrosion sensors 8 digital control inputs for contact water meter, flow switch and pause for locking
Accuracy	0.3 % based on the full-scale reading
Measurement input	pH/ORP (input resistance > 0.5 x $10^{12} \Omega$)
Temperature compensation	Pt 100/Pt 1000 for pH
Temperature correction range	0 100 °C
Control characteristic	P/PID control
Electrical connection	90 – 253 V, 50/60 Hz, 25 VA, 24 V DC
Field bus connection	Modbus RTU, additional field buses via gateway
Ambient temperature	0 50 °C (for use indoors or with a protective enclosure)
Enclosure rating	Wall-mounted: IP 67
Tests and approvals	CE, MET (corresponding to UL as per IEC 61010)
Housing material	PPE with flame-proof finish
Dimensions H x W x D	240 x 360 x 110 mm
Climate	Permissible relative humidity: 95 %, non-condensing DIN IEC 60068 –2-30

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Description of modules

Module AA mA/mA sensor input (slot 1-3):

2 sensor inputs for the connection of, for example, chlorine sensors, such as CBR or pH switch-over pHV1

Module V2 mV/mV temperature sensor input (slot 2-3):

2 sensor inputs for the connection of pH and ORP sensors and temperature sensors Pt100/Pt1000, e.g. of type PHER, RHER, PHEI, RHEIC, Pt100SE

Module H1 mA/mA output (slot 1-3):

2 galvanically isolated analogue outputs 0/4-20 mA for the output of measured values of control variables

Module D1 serial sensor monitoring module (slot 1-3):

Module 2 digital sensor input for the connection of CTFS or CRS corrosion sensors

Module V1 mV/temperature + mA module (slot 2-3):

- 1 sensor input for pH or ORP sensor and temperature sensor Pt100/Pt1000
- I sensor input for the connection of, for example, chlorine sensors, such as CBR or pH switch-over pHV1

Module CM Modbus RTU + 2 mA outputs (slot 3):

- 1 Modbus RTU slave, for connection to a PLC Programmable Logic Controller or gateway
- 1 Modbus RTU master, for the connection of a Pyxis fluorometer sensor
- 2 galvanically isolated analogue outputs 0/4-20 mA for the output of measured values of control variables

Module CA Modbus RTU + 2 mA outputs + 2 mA inputs (slot 3):

- I Modbus RTU slave, for connection to a PLC Programmable Logic Controller or gateway
- 1 Modbus RTU master, for the connection of a Pyxis fluorometer sensor
- 2 galvanically isolated analogue outputs 0/4-20 mA for the output of measured values of control variables
- 2 sensor inputs for the connection of, for example, chlorine sensors, such as CBR or pH switch-over pHV1